

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P345093

Luminaire Tested: **24CZ-45SE-L850-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P345093
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1905-313-5)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-45SE-L850-HRP-UNV-CD1-U
Description: CRUZE 2X4 WITH HRP LENS INSERT
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4281.5 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

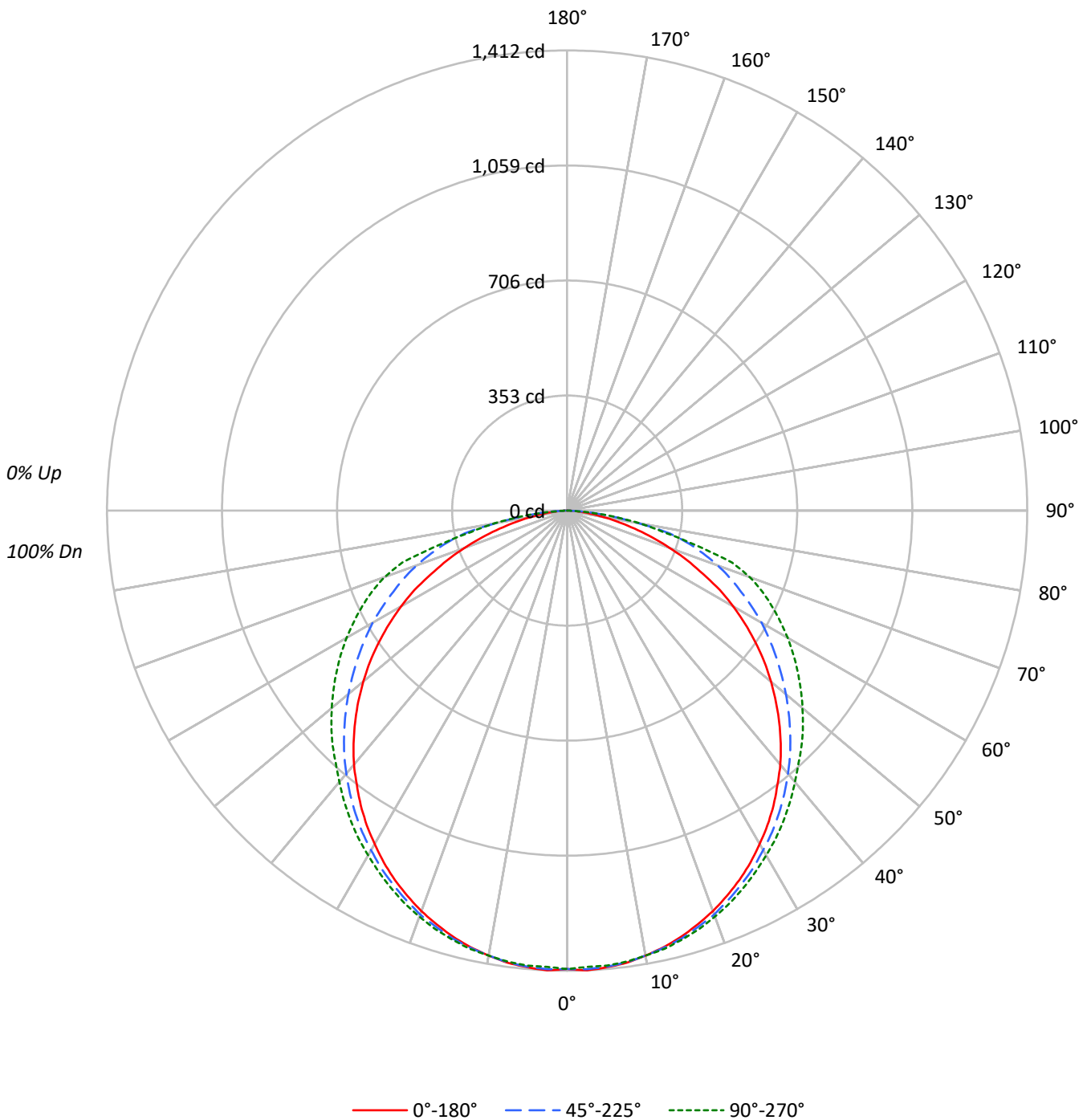
Input Watts (W): 39.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70	68
3	89	78	70	63	86	76	69	62	73	67	61	71	65	60	68	63	59	57
4	81	69	60	53	79	68	59	52	65	58	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	45	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	41	34	48	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	31	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1893	1893	1893
5°	1900	1897	1893
10°	1894	1894	1894
15°	1885	1893	1898
20°	1872	1888	1899
25°	1857	1879	1898
30°	1835	1869	1898
35°	1814	1862	1904
40°	1788	1852	1910
45°	1752	1843	1937
50°	1708	1835	1973
55°	1656	1837	2026
60°	1584	1856	2102
65°	1465	1874	2207
70°	1320	1934	2345
75°	1116	1993	2098
80°	867	1705	1762
85°	622	1161	1019



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.3	3.1
10°-20°	382.9	8.9
20°-30°	582.3	13.6
30°-40°	707.4	16.5
40°-50°	746.6	17.4
50°-60°	701.6	16.4
60°-70°	577.6	13.5
70°-80°	363.9	8.5
80°-90°	85.9	2.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1098.5	25.7
0°-40°	1805.9	42.2
0°-60°	3254.1	76.0
0°-90°	4281.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4281.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1407	1407	1407	1407	1407	
5°	1407	1399	1405	1403	1401	134
15°	1354	1348	1359	1363	1363	382
25°	1251	1249	1266	1273	1278	576
35°	1104	1110	1133	1148	1159	690
45°	921	935	968	996	1018	710
55°	706	732	783	838	864	630
65°	460	504	589	664	693	457
75°	215	281	383	418	404	229
85°	40	68	75	70	66	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1406.7	1406.7	1406.7	1406.7	1406.7
2.5°	1412.2	1403.1	1408.6	1406.7	1401.2
5°	1406.7	1399.4	1404.9	1403.1	1401.2
7.5°	1399.4	1392.0	1397.6	1395.7	1395.7
10°	1386.5	1381.0	1386.5	1386.5	1386.5
12.5°	1371.9	1366.4	1373.7	1375.5	1377.4
15°	1353.5	1348.0	1359.0	1362.7	1362.7
17.5°	1331.5	1327.9	1338.9	1342.5	1346.2
20°	1307.7	1305.8	1318.7	1322.4	1326.0
22.5°	1280.2	1280.2	1293.0	1296.7	1304.0
25°	1250.8	1249.0	1265.5	1272.8	1278.3
27.5°	1217.8	1217.8	1236.2	1245.3	1250.8
30°	1181.1	1184.8	1203.1	1214.1	1221.5
32.5°	1144.5	1148.1	1170.1	1183.0	1192.1
35°	1104.1	1109.6	1133.4	1148.1	1159.1
37.5°	1060.1	1069.3	1094.9	1111.4	1124.3
40°	1017.9	1025.2	1054.6	1072.9	1087.6
42.5°	970.2	983.1	1012.4	1034.4	1050.9
45°	920.7	935.4	968.4	995.9	1017.9
47.5°	869.3	887.7	922.5	959.2	981.2
50°	816.2	836.3	876.7	920.7	942.7
52.5°	763.0	785.0	829.0	880.3	904.2
55°	706.1	731.8	783.1	838.2	863.8
57.5°	647.4	676.8	735.5	797.8	823.5
60°	588.7	619.9	689.6	752.0	781.3
62.5°	528.2	563.1	638.3	709.8	737.3
65°	460.3	504.4	588.7	663.9	693.3
67.5°	398.0	443.8	541.0	616.2	647.4
70°	335.6	388.8	491.5	566.7	596.1
72.5°	273.3	335.6	436.5	513.5	530.0
75°	214.6	280.6	383.3	418.2	403.5
77.5°	157.7	231.1	322.8	304.5	300.8
80°	111.9	183.4	220.1	221.9	227.4
82.5°	71.5	135.7	143.1	144.9	146.7
85°	40.3	67.9	75.2	69.7	66.0
87.5°	18.3	22.0	18.3	12.8	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)